



# Water Week in Kentucky

## Mussels, Nature's Filters

March 2018

### What is a Freshwater Mussel?



*KY is home to over 100 species of freshwater mussels*

Bivalve, mollusk, or freshwater mussel; these are all names for the same organism. Mussels are soft-bodied animals enclosed in two shells connected by a hinge. Freshwater mussels are one of the most imperiled groups of animals in North America. Of the 103 species native to Kentucky, 20 have completely disappeared from the state and 36 more are considered rare or endangered.

Efforts are underway to culture and reintroduce rare and endangered mussels to Kentucky streams to strengthen and enhance native populations. This can be a difficult process because these animals have a unique life cycle.

Each species of freshwater mussel requires a host to complete its life cycle. For most freshwater mussels, this host is a fish. The larvae attach to the gills of the fish, develop into juvenile mussels, detach and settle to the substrate to begin life as an adult mussel. For more information about mussel propagation, visit [Kentucky Department of Fish & Wildlife's Center for Mollusk Conservation](http://Kentucky Department of Fish & Wildlife's Center for Mollusk Conservation).

### Why are mussels endangered?

Freshwater mussels have been in decline for decades partly due to their sensitivity to pollution and unique life cycle but also due to human factors such as the construction of dams, sedimentation, introduction of exotic species and habitat alterations including channelization and dredging.

### How do mussels help the environment?

Mussels feed by filtering out bacteria, plankton and detritus from the water, which makes them one of nature's best filters. The filtration improves the water quality of the stream. Mussels are used by biologists as environmental indicators of a healthy streams. If mussels are present in the stream then it is an indicator of good water quality.



*The life cycle of the freshwater mussel*